Gimp User Guide

From Them

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Chapter 1: GIMP/Toolbox

Toolbox from GIMP 2.6

GIMP has a "toolbox" to quickly perform basic tasks. Toolbox is customizable, this means that you can add / remove any tool you want. To select tools for doing something, go to the *"Tools"* menu, and select any tool you want. To put the tool on the panel go to *"Edit > Preferences > Toolbox"*.

But it can only be edited in a linear way, that is, while sorting it in the "options" there's no way to see where tools will finally appear on the grid. Even though the program's layout updates instantly. They push each other around. There's no way to align tools to right or other corners, or each other.

If the user later shifts the width of the toolbox' panel (to optimize space on screen), the grid gets misaligned, so there's a way to accommodate only 1 layout. If leaving a not evenly divisible quantity of tools, the lowest-right corner can't be utilized.

For that matter, it may be useful to make a screenshot of the toolbox with having activated all the needed tools, and lay out the grid in an easy raster program like Paint or GIMP itself, to make the surface look the needed way. Then start moving them in Preferences accordingly. Remember that tools go from the up-left corner, rightwise then down.

By default not all tools are shown - for example GEGL operation and colour tools are omitted. All tools can also be accessed by opening the *"Tools"* menu. To switch the window to toolbox, you can use **Ctrl + B**. Shortcuts written here are the default values - you can change them any time in *"Edit > Keyboard Shortcuts"* or *"Edit > Preferences > Keyboard Shortcuts"*.

More sophisticated tools are not in the toolbox, but next to the *Tools*, in the *Filters* menu.

Tools

These tools are available by default in toolbox.

| Icon	Name	Shortcut	Description
Selection tools			
	Rectangle	R	Select square or rectangular regions (axis-aligned).
	Ellipse	E	Select circular or horizontal / vertical elliptic regions. Notice that there's no ellipse drawing tool as such, only selecting.
	Free (Lasso)	F	Free-form selecting.
	Fuzzy (Magic Wand)	U	Select by colour in continuous regions.
	By Colour	Shift + O	Select by colour without any limit to continuous regions.
	Scissors	I	Create paths to select shapes.
	Foreground	*(none)*	Select a region containing foreground objects.
Brush tools			
	Bucket Fill	Shift + B	Fills areas with a colour or pattern.
	Blend (Gradient)	L	Fill an area with a gradient.
	Pencil	N	Draw exact pixel-edged lines; that is, not anti-aliased.
	Paintbrush	P	Paints soft- or fuzzy-edged lines; that is, the pixels are anti-aliased and/or feathered.
	Eraser	Shift + E	Erase pixels from a layer.
	Airbrush	A	Paint tool with a softer pressure.
	Ink	K	Paint anti-aliased with a simulation of a nib.

Icon	Name	Shortcut	Description
	Clone	C	Copy pixels from one part of an image to another.
	Heal	H	Heal image irregularities.
	Perspective Clone	*(none)*	Clone from an image source after applying perspective transformation.
	Convolve (Blur/Sharpen)	Shift + U	Blur or sharpen an image.
	Smudge	S	Mix adjacent pixels; with a direction.
	Dodge/Burn	Shift + D	Lighten or darken an image's shadows, mid tones or highlights.
Transform tools			
	Move	M	Move selections and layers.
	Align	Q	Align or arrange layers and/or other objects.
	Crop	Shift + C	Crop or clip all the image.
	Rotate	Shift + R	Rotate the active layer, selection or path.
	Scale	Shift + T	Scale the active layer, selection or path.
	Shear	Shift + S	Tilt part of the image to some direction.
	Perspective	Shift + P	Imitate 3-dimensional shift of an image.
	Flip	Shift + F	Flip selections and layers.
Other tools			
	Path	B	Allows selecting and modifying paths.
	Colour Picker	O	Select the colour from anywhere in open images for further drawing.
	Magnify (Zoom)	Z	Alter the zoom level in the program.
	Measure	Shift + M	Shows distances and angles.
	Text	T	Place text layers into your image.

There are also some other tools, hidden by default. These tools are accessed from the *"Tools"* menu, or by showing them in toolbox.

Icon	Name	Shortcut	Description
Colour tools			
	Colour Balance	*(none)*	Modifies the colour balance of current selection or layer.
	Hue-Saturation	*(none)*	Adjusts hue, saturation and lightness.
	Colourize	*(none)*	Renders into a grey scale seen through coloured glass.
	Brightness-Contrast	*(none)*	Adjusts brightness and contrast. This brightness is alike to the Color/Hue/Saturation's Lightness, but from other algorithmic point of view.

	Threshold	(none)	Transforms the current layer or selection into black and white.
	Levels	(none)	Changes the intensity range of the active layer or selection in every channel.
	Curves	(none)	Changes the colour, brightness, contrast or transparency by means of diagrams.
	Posterize	(none)	Reduces the number of colours.
	Desaturate	(none)	Converts all colour to shades of grey.
Other tools			
	GEGL operation	(none)	Executes a GEGL operation.

Tool options
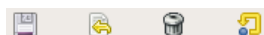
By default, activating any tool will have the effect of showing its options under the toolbox. Each tool has its own set of settings and any changes to them are kept through the current session. There are also four buttons under any options.

- **Save options to...** - save options of the current tool
- **Restore options from...** - restore options from saved file
- **Delete saved options...** - delete saved options
- **Reset to default values** - reset them to standard.

You can hide them by clicking on the arrow next to the tool name and deselecting **Show Button Bar**. You can also access these from the same menu under **Tool Options Menu**.

Colour, Indicator and Active Image area

Colour, Indicator and Active Image areas respectively.

Below the toolbox can be placed these three areas. This is set in *"Edit > Preferences > Toolbox"* and any of the three can be placed there.

Colour area
Shows current foreground and background colour. Clicking on either will bring the colour editor dialogue.
Clicking on the symbol in the lower left corner resets the colour to their defaults.
The **D** key has the same effect.
Clicking on the symbol in the upper right corner swaps the foreground and background colours. The **X** key has the same effect.
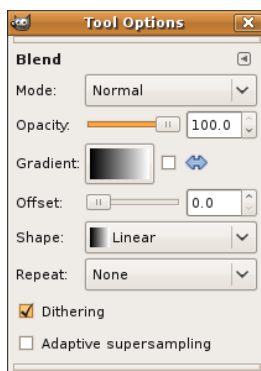
Indicator area
Shows currently selected brush, pattern or gradient. Clicking on any of these allows to change it.

Active Image area
Displays a thumbnail of the active image. Clicking on it will bring the Images dialogue up, allowing you to select an image.

Chapter 2: The Basics

Default gradient settings.

Shortcut: L
The GIMP Blend tool enables you to make gradients. For instance, a gradient may be a paint fill or stroke which smoothly blends from red to green. A gradient may have sudden changes as well. And a gradient may be applied to selections or opacities.
On the right side of the gradient dialog box, are the default settings:

- **Mode** - you can select mode here (more information in the Modes article)
- **Opacity** - set whether gradient will be transparent or fully visible
- **Gradient** - type of gradient

- **Offset** - effects how far along the start colour in the gradient begins
- **Shape** - shape of gradient
- **Repeat** - way of repeating
- **Dithering** - helps reduce banding by dithering the gradient.
- **Adaptive supersampling** - try to refine the gradient in high contrast areas. Choose how much difference is required before supersampling activates, and how hard GIMP tries to get good quality samples.

Opacity
This bar controls the transparency of the gradient. Any value between 0.0 and 100.0 is possible with 100 being fully opaque and 0 being fully transparent. The default value is 100.

Gradient
There are hundreds of types of gradients in GIMP. Neons, flags, flares and much more. All of them have their own effect, but only few use selected colours. Here's short description of them:

- **FG to BG (HSV anti-clockwise)** - using HSV palette, moves counter-clockwise
- **FG to BG (HSV clockwise hue)** - using HSV palette, moves clockwise
- **FG to BG (RGB)** - using RGB palette
- **FG to Transparent** - moves from foreground colour to transparent.

Next to it you can see a flip option ( ). It reverses the gradient direction. For example, Red to Green would flip to Green to Red.

Shape
There are eleven gradient shapes, clicking and dragging inside a selection makes the gradient follow its boundary.

- **Linear** - Smoothly blends from left to right
- **Bi-linear** - Smoothly blends to the left and right from the middle
- **Radial** - Linearly blends outward along radius - pseudo-spherical appearance
- **Square** - Linearly blends into a square from center to corner
- **Conical (symmetrical)** - blends linearly with angle in a circular arc
- **Conical (asymmetrical)** - blends linearly with arc, until reaching the starting radius
- **Shaped (angular)** - formerly shapeburst, produces an angular beveled gradient
- **Shaped (spherical)** - fills selection with a bulging beveled gradient
- **Shaped (dimpled)** - fills selection with a puckered beveled gradient
- **Spiral (clockwise)** - clockwise spiral blend centered at click, with varying amount of twist
- **Spiral (counterclockwise)** - counterclockwise spiral

Repeat
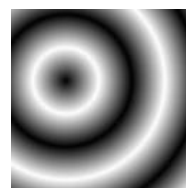
Example of triangular wave (using radial shape).
There are three options for repeating:

- **None** - no repeat
- **Sawtooth wave** - once passing the end of the gradient, begins again at the start
- **Triangular wave** - once passing the end of the gradient, blends backwards until the start, and then begins blending forward again..

You can use Repeat with these shapes: Linear, Bi-linear, Radial, Square, Conical (sym), Conical (asym).

Dithering
Dithering reduces banding patterns in the gradient. If your gradient includes deliberately banded areas, turn dithering off in order to preserve them. If the result must be very precise, consider turning dithering off also (dithering trades spatial resolution for colour resolution, which is only good if you have spatial resolution to spare.)

Adaptive Supersampling
Adaptive supersampling identifies areas that seem to have high contrast and tries to improve the precision of the rendering only at these points. The general effect is that areas of high contrast are smoothed out; One easy way to see this is comparing the

appearance of a 'sawtooth wave' repeated gradient with and without supersampling enabled. The options in this section allow you to control

- How much contrast is considered 'high contrast'
- How much GIMP will try to improve the sample quality before accepting the result (this comes into action when the additional samples' relationship to each other is also considered as high contrast)

See supersampling (goo.gl/l6T3Ma) for a detailed explanation.

Chapter 3: Move Tool
The Basics
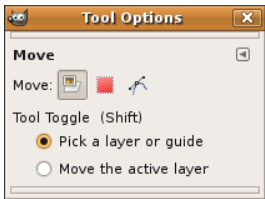
Move tool menu.

 Shortcut: M

Move tool is used for moving anything on the image, including layers, selections and paths.

- **Move** - defines what will be moved
- **Tool Toggle** - toggle between the two available modes (for each option)

You can toggle between the two options with **Shift** (temporarily).

Move
You can choose what you want to move, as mentioned before it's either layer, selection or path.

Layers
To move a layer, select this option. If the layers are grouped (chain symbol), all layers in the group will be moved.

When this mode is selected, under tool toggle you'll see two options, *"Pick a layer or guide"* and *"Move the active layer"*. The first one will move the layer that you select and the second one will always move the active layer.
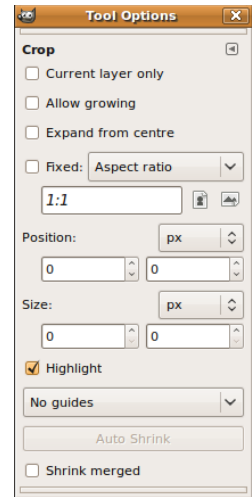
Selections
The move tool allows you to move the selection outline. It has no options in Tool Toggle.

Paths
You can also move paths with this tool. Note that path tool has its own tool for moving. To use move tool, make the path visible in the path dialogue.

Chapter 4: Crop Tool
The Basics

Crop tool menu with default settings

 Shift + C

The Crop tool can be used to crop or clip the image, working on all layers of the image (both visible and invisible). It can be used for removal of borders, or unwanted areas of the image to centre the focus on the work.

To crop the image to selected size, double-click inside the box, or press **Enter**. The crop box can be resized by dragging at the edges and corners. To move it, click and drag on the crosshairs at the centre.

- **Current layer only** - works only on the current layer
- **Allow growing** - allows to expand beyond borders
- **Expand from centre** - expands selection, using starting point as the centre, instead for the corner
- **Fixed** - allows you to modify the actual shape of rectangle
- **Position** - placement of the selection to crop
- **Size** - size of the selection to crop

- **Highlight** - highlights the actual selection, by darkening everything that surrounds it
- **Guides** - select the types of guides shown within of selection
- **Auto Shrink** - shrinks the selection to the nearest rectangular shape available on the image layer
- **Shrink Merged** - if this option is enabled, then Auto Shrink will use the pixel information from the visible display of the image, rather than from the active layer

Current layer only
Crop tool will only work on the currently selected layer, instead of working on all existing.
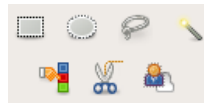
Allow growing
Allows Crop tool to expand beyond borders of the image/layer, and crops along with the outside area.

Other options
All other options work as described in Rectangle Selection article. See sections Expand from centre to Shrink merged

Chapter 5: Selection Tools
The Basics

All seven selection tools.

There are 7 selection tools. Each has its own properties, but all have something in common. All of these common options will be described here, while their variations on the tools pages. The tools are:

- Rectangle Select Tool
- Ellipse Select Tool
- Free Select Tool (Lasso)
- Fuzzy Select Tool (Magic Wand)
- Selection by Colour Tool
- Scissors Select Tool
- Foreground Select Tool

Basic options

The paths tool can be considered as a selection tool, but it doesn't share any options. It can be used as a tool for creating complex selections, especially ones that follow natural curves. To convert a path to a selection you can use *Select > From Path* (**Shift+V**). There is also a quick mask mode, used for creating and editing selections using the paintbrush or any other drawing tools. It can be found under *Select > Toggle Quick Mask* (**Shift+Q**).

The common options are:

- **Modes** - determines the way of creating the selection, whether it will be combined with existing one and such
- **Anitaliasing** - causes the boundary of the selection to be drawn smoother
- **Feather edges** - causes the boundary of the selection to be blurred

Modes
Modes determine whether the selection will be added, subtracted or intersected from existing one, or either replace it. Functions performed by these button can be duplicated using modifier keys, as described later. Many people find this very useful.

- **Replace** - default mode, replaces the existing selection
- **Add** - adds a new selection to the existing one
- **Subtract** - removes the new selection from already existing region
- **Intersect** - makes a new selection from the region when both the new and old one overlap

Antialiasing
This option only affects few of selection tools. It causes the boundary of the selection to be drawn more smoothly.

Feather Edges

Feather Edges blurs the boundary, by selecting the boundary pixels only partially. This allows the selection to smoothly blend with the background.

Key modifiers (defaults)

The behaviour of selection tools can be modified by holding down **Ctrl**, **Alt** and **Shift**.

- **Ctrl** - has two options depending on what you are doing
    - while creating a selection toggles *Expand from centre* option
    - while doing nothing, this key switches to *Subtract mode*, as long as you hold it
- **Alt** - allows movement of the current selection (only its frame, not content). If the image is moved instead, try **Shift + Alt**
- **Shift** - similarly to **Ctrl**, it has two options depending on what you are doing
    - before starting a selection, this key will switch to *Add mode*, as long as you hold it
    - after starting a selection, it will depend on the tool you are using - for example for *Rectangle Selection*, it will create a square selection
- **Ctrl + Shift** - depending on which tool is used, different thing will happen. A common option however is switching to *Intersect mode*
- **Ctrl + Alt + Click-and-drag** and **Shift + Alt + Click-and-drag** - allows movement of the current selection (its content)
- **Space bar** - transforms the tool to Navigation cross as long as you press the bar, allowing you to pan around the image, instead of using scrollbars. In *Preferences > Image Windows* you can toggle the **Space bar** to the Move tool.

Chapter 6: Rectangle Selection
The Basics
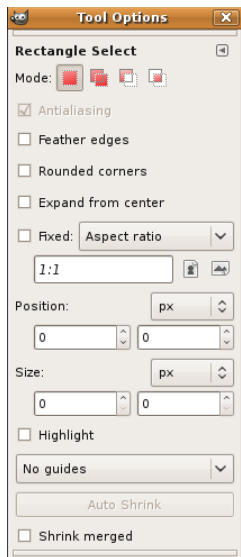
Default rectangle selection tool settings.

 Shortcut: R

The rectangle selection tool is a simple but useful tool. It allows you to create rectangular selections.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such
- **Antialiasing** - causes the boundary of the selection to be drawn smoother
- **Feather edge** - causes the boundary of the selection to be blurred
- **Rounded corners** - rounds the corners of the selection
- **Expand from centre** - expands selection, using starting point as the centre, instead for the corner
- **Fixed** - allows you to modify the actual shape of rectangle
- **Position** - placement of the selection
- **Size** - size of the selection
- **Highlight** - highlights the actual selection, by darkening everything that surrounds it
- **Guides** - select the types of guides shown within of selection
- **Auto Shrink** - shrinks the selection to the nearest rectangular shape available on the image layer

- **Shrink merged** - if this option is enabled, then *Auto Shrink* will use the pixel information from the visible display of the image, rather than from the active layer

Modes, Antialiasing and Feather Edges

See Selection Tools#Modes for information about Modes
See Selection Tools#Antialiasing for information Antialiasing
See Selection Tools#Feather Edges for information about Feather Edges option

Rounded corners

A slider appears after enabling this option. Use it, to change the radius that is used to round the corners

Expand from centre

After enabling this option, the starting point is used as the centre of the selection instead of using it as a corner. This also causes that the selection is extended from all sides. This option can be enabled with **Shift**.

Fixed

This option allows you to modify the shape of rectangle in four ways:

- **Aspect ratio** - allows you to desing the selection, while keeping the aspect ratio fixed. By default it is 1:1, which makes a square. There are two little icons next to it (landscape and picture)
- **Width** - you can fix the width of the selection
- **Height** - you can fix the height of the selection
- **Size** - you can fix both, width and height of the selection

Position

The actual placement of the current selection. This will show the placement of upper left corner, or centre, if *Expand from centre* option is enabled. You can use it to modify

Size

The actual size of the current selection. You can use it to modify the size, as well as resizing it directly on the image.

Highlight

Emphasizes the selected area by a surrounding mask, making the visual selection much easier.

Guides

In here you can set what guides will be shown within the selection, respecting *Photo composition rules*.

- **No guides** - no guides are shown
- **Centre lines** - only the centre lines are visible
- **Rule of thirds** - guides are shown along the rule of thirds
- **Golden sections** - guides show up to mark the golden sections

Auto Shrink

After pressing this button, already having a selection, it will shrink to the nearest rectangular shape within the selection. The algorithm for finding the best rectangle, can once do a great work, and sometimes find some strange rectangles.

Shrink merged

If this option is enabled *Auto shrink* will look on the actually visible image, rather than the active layer.

Chapter 7: Ellipse Selection
The Basics
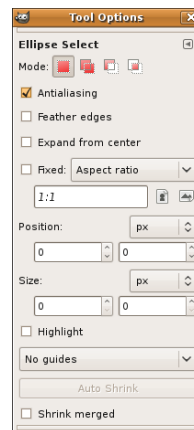
Default ellipse selection tool settings.

Shortcut: E

Ellipse selection is similar to the rectangle one. The only difference is the fact that it has one option less - rounded corners, as it is elliptical selection so for what. As the name suggests it is made for creating elliptical and circle selections, with option high quality antialiasing.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such

- **Antialiasing** - causes the boundary of the selection to be drawn smoother

- **Feather edge** - causes the boundary of the selection to be blurred

- **Expand from centre** - expands selection, using starting point as the centre, instead for the corner

- **Fixed** - allows you to modify the actual shape of rectangle

- **Position** - placement of the selection

- **Size** - size of the selection

- **Highlight** - highlights the actual selection, by darkening everything that surrounds it

- **Guides** - select the types of guides shown within of selection

- **Auto Shrink** - shrinks the selection to the nearest rectangular shape available on the image layer

- **Shrink merged** - if this option is enabled, then *Auto Shrink* will use the pixel information from the visible display of the image, rather than from the active layer

Modes, Antialiasing and Feather Edges

See Selection Tools#Modes for information about Modes
See Selection Tools#Antialiasing for information Antialiasing
See Selection Tools#Feather Edges for information about Feather Edges option
All other options[edit]
See Rectangle Selection for information about the tool as everything works completely (or almost completely) the same. The only difference is existence of rounded corners option in **Rectangle Selection** - there is no need for it here.

Chapter 8: Free Selection
The Basics
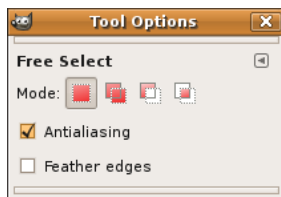
Default free select tool settings.

Shortcut: F

Free selection tool (also called 'Lasso') let's you create a selection by drawing it free-hand (with the pointer and holding down the left mouse button, of course). It is the only selection tool, that has nothing more than the basic options. The selection is finished with a straight line and it actually possible the create straight lines by clicking (not holding!) on one point and making another one somewhere away from it.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such

- **Antialiasing** - causes the boundary of the selection to be drawn smoother

- **Feather edge** - causes the boundary of the selection to be blurred

Modes, Antialiasing and Feather Edges

See Selection Tools#Modes for information about Modes
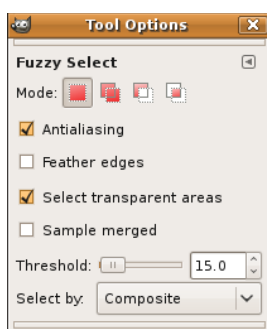See Selection Tools#Antialiasing for information Antialiasing
See Selection Tools#Feather Edges for information about Feather Edges option

Chapter 9: Fuzzy Selection
The Basics

Default fuzzy selection tool settings.

Shortcut: U

Fuzzy selection (also called 'magic wand') is a tool for selecting areas of image (or layer) with the same/similar colour. It is very important to pick the starting point correctly, or either you will get something completely different from what you want (well, not always, but usually yes). Wand is a good choice for selecting objects with sharp edges. It is also great for touching up selections, or selecting areas within some contour.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such

- **Antialiasing** - causes the boundary of the selection to be drawn smoother

- **Feather edge** - causes the boundary of the selection to be blurred

- **Select transparent areas** - gives the ability to select areas completely transparent

- **Sample merged** - creates a selection from actual image, instead from the active layer

- **Threshold** - determines the range of colours

- **Select by** - select, which component shall be used for calculating the similarity

Modes, Antialiasing and Feather Edges

See Selection Tools#Modes for information about Modes
See Selection Tools#Antialiasing for information Antialiasing
See Selection Tools#Feather Edges for information about Feather Edges option

Select transparent areas

After selecting this option, the Free Selection tool will have the ability to select completely transparent areas. If this option is unchecked, transparent areas will never be selected.

Sample merged

This option has any meaning when you have several layers on the image, and the active layer is either semi-transparent or set to another mode than *Normal*. If it is so, the colours present in the layer, will be different from the ones in the real image.

Threshold

This slider determines the range of colours that will be selected at the moment of creation of the selection. Higher threshold - larger resolution. Note that with higher selection also bigger gaps are possible to be between the selections. After the first button-press (but before releasing it), dragging the pointer downward (or to the right) will increase the size of the selection, while dragging upward (or to the left) will decrease the size of it. Thus the first settings of threshold do not really matter, as you can modify them any time afterwards.

Select by

This option will change the component that The GIMP will use for calculating the selection. The possible components
are: *Composite*. *Red*, *Green*, *Blue*, *Hue*, *Saturation* and *Value*.

Chapter 10: Selection by Colour
The Basics
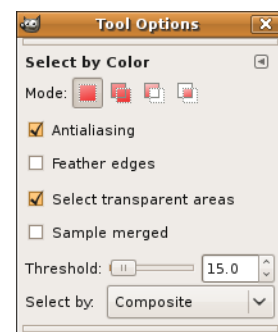
Selection by colour tool settings.

Shortcut: Shift + O

Select by colour works really similar to the Fuzzy Selection tool. The main difference is that when magic wand makes selection with no real gaps, selection by colour takes all the pixels with similar colour, regardless to where they are located.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such

- **Antialiasing** - causes the boundary of the selection to be drawn smoother

- **Feather edge** - causes the boundary of the selection to be blurred

- **Select transparent areas** - gives the ability to select areas completely transparent

- **Sample merged** - creates a selection from actual image, instead from the active layer

- **Threshold** - determines the range of colours
- **Select by** - select, which component shall be used for calculating the similarity

Modes, Antialiasing and Feather Edges[edit]
See Selection Tools#Modes for information about Modes
See Selection Tools#Antialiasing for information Antialiasing
See Selection Tools#Feather Edges for information about Feather Edges option

All other options
See Fuzzy Selection for information about the tool as everything works completely (or almost completely) the same.

Chapter 11: Scissors
The Basics

Default scissors tool settings.

 Shortcut: I

Scissors is an interesting selection tool. It has some features of lasso, some features of paths tool and some of its own. It is useful for selecting a region defined by strong colour changes at the edges. To use scissors, you need to create a set of 'control nodes' (also referred to as anchors), at the edges of the region you are willing to select. The tool creates a curve through these nodes, following any high-contrast it can find. Each time you press left mouse button, you create a new anchor that is connected to the last control node by a curve. If you want to finish the selection, just press on the first node you've created. After that you can adjust the selection by modifying the curves or by moving/creating new nodes. When you are satisfied just press anywhere inside of the selection to create it.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such
- **Antialiasing** - causes the boundary of the selection to be drawn smoother
- **Feather edge** - causes the boundary of the selection to be blurred
- **Interactive boundary** - the curves will be created instantly after creating a new node

Modes, Antialiasing and Feather Edges
See Selection Tools#Modes for information about Modes
*See Selection Tools#Antialiasing for information Antialiasing*
See Selection Tools#Feather Edges for information about Feather Edges option

Interactive boundary
When this option is active, the curves between nodes will be really curves. Normally (when the option is disabled) there will be only straight lines until you finish the selection.

Chapter 12: Foreground Select
The Basics
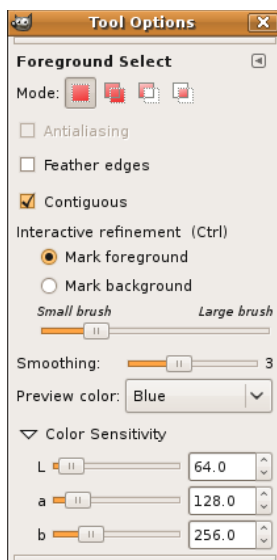
Default foreground selection tool settings.

 Shortcut: none

This tool lets you extract foreground from the active layer, using the SIOX method. To create a selection, set roughly foreground you want to extract. Select as little of the background as possible. As soon as you're finished (the selection is closed) the rest of the image goes dark. Now draw the line through the foreground, going through all colours that will be used for extraction. Then after releasing the mouse-button, only the actual foreground is selected. Remember to press **Enter** after finishing the selection, or you could actually loose it.

- **Modes** - determines the way of creating the selection, whether it'll be combined with existing one and such
- **Antialiasing** - causes the boundary of the selection to be drawn smoother
- **Feather edge** - causes the boundary of the selection to be blurred
- **Contiguous** - if this option is enabled, only area contiguous to the stroke is selected
- **Interactive refinement** - settings for the brush
- **Smoothing** - controls the smoothness of selection
- **Preview colour** - colour of the selection background
- **Colour Sensitivity** - set the sensibility for colours of the selection

Modes, Antialiasing and Feather Edges
See Selection Tools#Modes for information about Modes
See Selection Tools#Antialiasing for information Antialiasing
See Selection Tools#Feather Edges for information about Feather Edges option

Contiguous
When this option is enabled, only areas contiguous to the stroke will be selected. When this option is not enabled, all areas of the same colour in the rough selection will be selected.

Interactive refinement
The following options are for controlling the brush of foreground select tool.
Mark foreground/background
Whether foreground or background colour will be used for the stroke. **Ctrl** is used to toggle between those. *Remember!* background colour is used for erasing.
Small/Large brush
This slider lets you adapt the size of the brush. Small brush is good for details, while large is good for general foreground selection.

Smoothing
This slider lets you to remove holes in the selection. Also remember - smaller values may create a better border but include these holes in the selection.
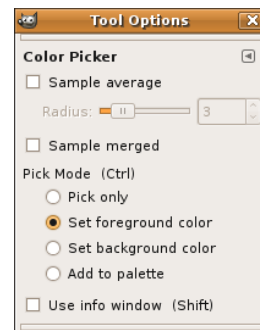
Preview colour
Selected colour will be used to mask the image background. Possible options: red, green, blue.

Colour sensitivity
This option uses L*a*b colour model. If your image contains many pixels of the same color in different tones, you can increase the sensibility of the selection for this colour.

Chapter 13: Colour Picker
The Basics

Default colour picker tool settings.

 Shortcut: O

On the right side you can see the settings for the colour picker. Here's a short description of everything there:

- **Sample average** - set whether to pick average value from pixels within some radius (1 to 300px) of the selected point.
- **Sample merged** - set whether to merge the colour from all visible layers and pick that (i.e. to pick the colour as seen).
- **Pick mode** - modes, see below.
- **Use info window** - set whether you want to see the info window, see below.

Pick Mode

There are four modes in the colour picker tool. Here are their descriptions:

- **Pick only** - only picks a colour, doing nothing to it (information dialogue must be turned on);
- **Set foreground colour** - picked colour is used as foreground colour;
- **Set background colour** - picked colour is used as background colour;
- **Add to palette** - adds the colour to the palette, especially useful while creating palettes;

Ctrl switches between *Set foreground colour* and *Set background colour*, when either of these is active.
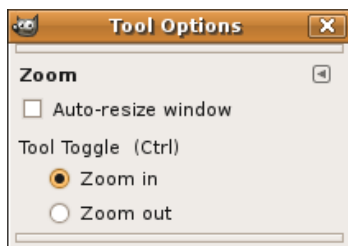
Info Window

The info window.

Shows an info window, with two columns of information - you can choose for both of those these options: pixel, RGB, HSV and CMYK, with pixel and RGB being active by default. **Shift** toggles it on and off.

Chapter 14: Zoom Tool

 Shortcut: Z

The zoom tool is used for magnifying a selected part of the image.
The first option is called **Auto-resize window**. By default it's disabled. By enabling it, it will resize the window according to the size of the magnified area.
Underneath are two other options, for zooming in or out. As mentioned later, you can toggle between those two using a keyboard shortcut.
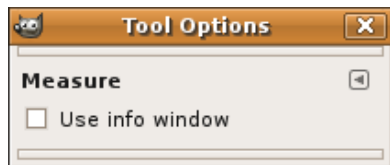By selecting an area of the image, you can zoom in/out on that area.

Key Modifiers *(defaults)*

Ctrl - changes direction of zooming.
Ctrl + Mouse Wheel - spinning the mouse wheel, without clicking, varies the zoom (the zoom tool does not need to be selected for this).

Chapter 15: Measure Tool

Measure tool menu.

 Shortcut: Shift + M

The measure tool measures length of the visible line, width, height and angle shown in the status-bar.
In the tool options there is a check-box **Use info window**, if checked a window will show itself when you begin measuring providing you with the same details as before. Use info window is disabled by default.

Key Modifiers *(defaults)*

Shift - starts a new measure from the point the lasts end, without deleting the old one (useful for measuring angles with respect to features in the image).
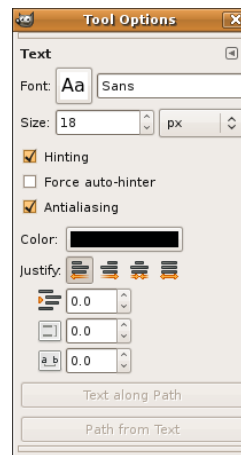**Ctrl** - puts the tool into straight line mode (angles constrained to 15 degree increments), also (click on the endpoint) creates a horizontal guide.
Alt - creates a vertical guide if the endpoint is clicked.
Ctrl + Alt - allows dragging the measured line, also creates both horizontal and vertical guide (by clicking the endpoint).

Chapter 16: Text Tool
The Basics

Default text settings.

 Shortcut: T

The text tool is used for creating and editing text layers. On the right side you can see default settings for text tool. Here's short (and then long) description about everything there:

- **Font** - select the font you want to use
- **Size** - set the size (height) of the font
- **Hinting** - modifies the characters to produce clear letters in small font sizes
- **Force auto-hinter** - tries to automatically compute information for better representation of the character font
- **Antialiasing** - renders the text smoother
- **Colour** - the colour of the text
- **Justify** - set the justification of the text
- **Indent** - controls the indent spacing from left margin
- **Line spacing** - controls the spacing between the lines of text
- **Character spacing** - controls the spacing between the characters
- **Text along Path** - puts the text along path
- **Path from Text** - creates selection path from selected text

Font
There's only one way to select a font in the GIMP -- by using the font selector in this tool

Size
To set the size of the font just enter a value in the box, or use the arrows. You can choose from a few units, by default in pixels, size of 18.

Hinting
Using the indices of adjustment, modifies the characters, to make them look clear in small sizes.

Auto-hinter
Auto-hinter, tries to automatically compute information to make a better representation of the character font.

Antialiasion
See Antialiasing for more information
Renders the text with smoother edges and curves. This option can improve the visual appearance of the rendered text.

Colour
Colour of the text, default is black. The colour of the text when writing, won't change instantly. You need to rewrite the text in that colour, or select the text and change it then.

Justify
Justifies the text according to the selected option. The options are:

- **Left justified**
- **Right justified**
- **Centered**
- **Filled**

Indent
Controls the actual spacing from left margin. By default set to 0.0

Line spacing

Spacing between lines. By default set to 0.0, although the spacing is not in fact 0 pixels then. The value can go under 0.

Character spacing

Spacing between characters. By default set to 0.0, behaves the same as line spacing settings.

Text along Path

You need to create a path first. The path becomes visible when using this option. The text is bent along the path, representing letters with their outline. Each of them is a component of the new path. All path options should apply to this path.

Path from Text

Creates selection, using the text. Every letter is surrounded with paths, so you can modify the shape of it, by moving the nodes.

Text editor
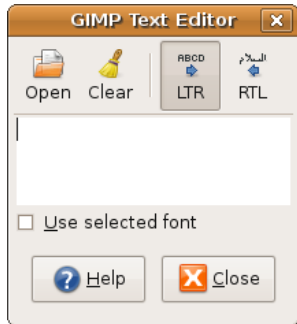
Text editor window.

This dialogue is opened when you click with the text tool on the image window. The text you enter directly appears on the image. If the option "Show Layer Boundary" is checked in the view menu, the layer will be surrounded with black and yellow dashes. You can easily move the text with the Move tool, but you need to click on the text - it's not selected. As soon as you start writing, the layer appears in the layer dialogue. After that you can easily resume the text, if you are still editing the image, or if it is an .xcf file. To add more text to the image, click on a non-text layer, and a new text editor appears. So there are these five options there:

- **Open** - loads the text from a file
- **Clear** - clears the text area
- **LTR** - the text will be entered from left to right
- **RTL** - the text will be entered from right to left
- **Use selected font** - whether it will use the font from options dialogue

Open

Using this option, you can directly load the text from a file.

Clear

Clicking this icon, will cause erasing all text from the text area.

LTR and RTL

LTR - the text will be entered from left to right, as with most Western and Eastern languages

RTL - the text will be entered from right to left, as with all Arabic and some Eastern languages

Use selected font

By default the font from the options dialogue is not used. Check this option if you want to use it.

Chapter 17: Editing
Image Operations

Image operations not offered in the toolbox are accessed by right-clicking on the image. Since Gimp 2.0, there is also an option to display this menu at the top of the screen. (This option is now default)

Right-click on the image to access the menus. For example, Right-click, **File, Save** is used to save the image in a variety of formats - for example PNG and JPEG formats are recommended for use on Wikipedia. To decrease a JPEG's filesize, adjust the *Quality* slider when you save. If doing this it may be helpful to tick the *Show preview in Image Window* checkbox, tthe file size will be calculated and the loss of quality can be inspected. Often, it's useful to get info on an image you're editing. To do this, right-click on the image to bring up the menu, and then choose **Image > Image Properties**, or hit **Alt-Enter**. The first three properties are very important for printing: Pixel Dimensions, Print Size, and Resolution.
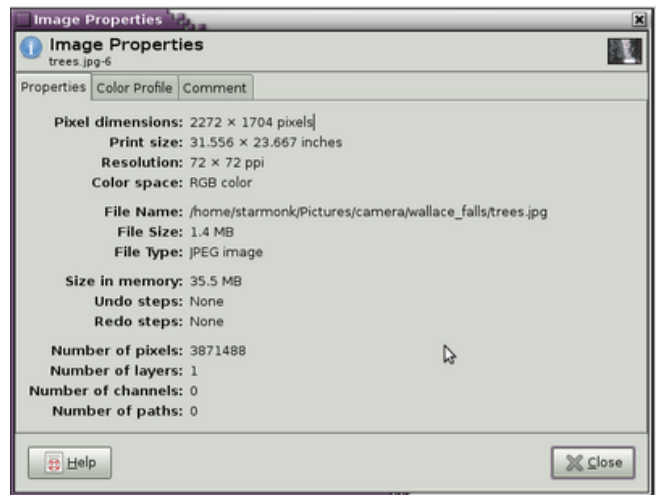
An Image Properties box.

Image > Canvas size is used to adjust the size of image dimensions, but does not attempt to scale the image.

Image > Scale image is used to change the size of the image, for example to create thumbnail images.

To remove a section of image, just select it (using one of the select tools) and press Control-K ("kill", same as using **Edit > Clear**). This will either erase the selection to the background colour, or to transparency if the image supports it.

Chapter 18: Colours

GIMP can understand a number of different colour formats with a varying degree of support. It supports three so called *modes*: RGB, grayscale, and indexed.

To change the mode of the image, choose in the menu from *<Image> Image > Mode > ....*

Colour Mode

GIMP supports the following color modes:

- **True Colour (RGB):** This has the best support in GIMP. It is made up from 3 channels of 256 tonal variants, making a total of 16.7 million colours - 256 * 256 * 256.

Supported formats: XCF, PNG, TGA, TIFF, SGI, BMP.

- **Grayscale:** The grayscale mode uses one channel to display a gray image. GIMP supports grayscale well and is usable for most tools that don't specifically require colour information.

Supported formats: XCF, PNG, TGA, TIFF, SGI.

- **Indexed:** In this mode, the image consist of pixels picked from a palette of up to 256 colours.

When you convert an image into this mode, or when you are reducing the color depth of an image, dithering options give you control over how colours are scattered. For the best quality results (especially with pictures that have gradual tonal variance) use *Floyd-Steinberg* dithering: it will give a grainy texture to the picture, but reduce visible banding between different colours. On the other hand, reduced or no dithering will result in smaller files when saved as GIF or PNG (or BMP with the *Run-Length Encoded* option set).

Supported formats: XCF, PNG, GIF, BMP.

- **Monochrome**: Two colours, often black and white. GIMP sees this as an indexed image with only 2 colours.

Supported formats: XCF, PNG, GIF, BMP.

Menu items for color modes:

- Image > Mode > RGB
- Image > Mode > Grayscale
- Image > Mode > Indexed

Alpha Channel

Regardless of the mode, images can have an optional alpha channel for transparency. An image with an alpha channel can have transparent and semitransparent pixels, the degree of transparency of each pixel ranging from 0 to 255. Using transparency enabled by alpha channel, you can create a picture by stacking several layers on top of each other, save images for the web, or create images for 3D graphics that have holes or semi-opaque areas.

Formats that fully support alpha channel: XCF, PNG, TIFF, TGA, SGI. Formats that only support alpha channel as fully opaque or fully transparent: GIF, XPM.

Only Internet Explorer versions later than version 7 support transparency. Internet Explorer 6 and earlier do not.

Menu items for alpha channel:

- Layer > Transparency > Add Alpha Channel
- Layer > Transparency > Remove Alpha Channel
- Layer > Transparency > Add to Selection

Colour Filter/Tools

Image, Mode, Decompose will split a colour image into a set of greyscale images, based on various colour models. *Image, Mode, Compose* does the opposite, combining greyscale images into colour ones. Striking effects may be obtained by recombining channels in a different model or order than they were decomposed in.

A number of colour adjustments can be found under *Image, Colours*, and colour effects under *Image, Filters, Colours*

Bibliography

- Mode in GIMP manual (goo.gl/TRGGyq)

Chapter 19: Saving

This shows a typical image editing window in the GIMP (this is version 1.2, more recent versions will have a set of menus at the top of the image window) Right-click, *File, Save* is used to save the image. A filetype can be selected (png, jpeg, etc.) from the dropdown list, but the default action is to use whatever extension was typed (specifying "image.jpg" causes it to save a JPEG file)

After the filename is specified, there is an additional dialog box specific to each filetype. For example, a JPEG image will ask you for the compression level, and it can be useful to adjust this until the image is a reasonable filesize.

Image formats Supported by GIMP

as of GIMP 2.2.13

Significant file formats

File Format	Extension(s)	Description
XCF	.xcf/ .xcf.gz/.gz/.xcfgz/ .xcf.bz2/.bz2/.xcfbz2/ .gbr/.gih/.pat	GIMP's native format which will preserve all image data, including layer, the current selection, channels, transparency, paths and guides, but it doesn't save undo history. XCF images take up a lot of space, and are not supported by most image viewers, which is why XCF is only good for saving images for future editing (not for image exchange). There is also an option to compress the XCF by using either gzip (using xcf.gz/gz/xcfgz extension) or bzip2 (using xcf.bz2/bz2/xcfbz2 extension) compression. GIMP's other native formats include GIMP Brush (.gbr), GIMP Animated Brush (.gih), and GIMP Pattern (.pat).
BMP	.bmp/.dib	**Bi**t**map** is an uncompressed image format, which is the internal image format for Windows and OS/2 Graphic Subsystem.
GIF	.gif	**G**raphic **I**nterchange **F**ormat is often used for screenshots and computer graphics. It is lossless if the image has under 256 color or otherwise it become lossy. It allows transparent mask, which means a pixel can only be fully transparent or fully opaque, and not partially transparent.
HTML	.htm/.html	**H**yper**t**ext **M**arkup **L**anguage. GIMP will save in HTML as a HTML page that contains a table containing the image.
ICO	.ico	**Ico**n Image File Format is Windows' image format for icons.
JPEG	.jpg/.jpeg/.jpe	**J**oint **P**hotographic **E**xperts **G**roup is typically used for photographs. It uses lossy compression that results in a loss of detail, commonly called artifacts. The artifacts are usually most noticeable on images that have sharp edges, while less noticeable on photographs, which have many smooth gradients.
PNG	.png	**P**ortable **N**etwork **G**raphic is often used for screenshots and computer graphics. It uses lossless compression. It allows full alpha transparency.
PNM	.pnm/.ppm/.pbm/ .pgm/.pam	Portable Pixmap. PNM (**P**ortable **A**ny **M**ap, a shorthand for ppm, pbm, and pgm format), PPM (**P**ortable **P**ixel **M**ap), .pbm (**P**ortable **B**it **M**ap), .pgm (**P**ortable **G**ray **M**ap) and .pam (**P**ortable **A**rbitrary **M**ap).
PS and EPS	.ps/.eps	**P**ost**s**cript Document and **E**ncapsulated **P**ost**s**cript

PSD	.psd	**P**hoto**s**hop **D**ocument, the native format of another popular graphic editing software, Adobe Photoshop.
TGA	.tga	**T**ruevision **G**raphics **A**dapter, Targa's native image format.
TIFF	.tif/.tiff	**T**agged **I**mage **F**ile **F**ormat
XBM	.xbm	**X** **Bi**t**ma**p 2-bit, Monochrome Bitmap for X Window System
XPM	.xpm	**X** **P**ixel**m**ap Color Bitmap for X Window System

Other less popular image format also supported by GIMP:

Extension(s)	Description
.pix/.matte/.mask/.alpha/.als	Alias/Wafefront Pix Image
.fli/.flc	Autodesk FLIC Animation
.c/.h	C/C Header Sourcefile Format
.dcm/.dicom	Digital Imaging and Communications in Medicine Image
.fit/.fits	Flexible Image Transport System
.cel	KISS Cel
.sgi/.rgb/.bw/.icon	Silicon Graphic IRIS Image
.im1/.im8/.im24/im32/.ras/.rs	SUN Rasterfile Image
.pcx/.pcc	ZSoft PCX Image
.xwd	X Windows Dump

Other file formats that GIMP can only read, but not write:

Extension(s)	Description
.g3	G3 Fax Image
.wmf/.apm	Microsoft WMF File
.psp/.tub	Paintshop Pro
.pdf	Printable Document File
.svg	Scalable Vector Graphic
.fit/.fits	Flexible Image Transport System

GIF images

The Unisys patent has now expired and in recent versions of the GIMP you should be able to save compressed GIF images using GIMP.

If your version will not save GIF files and it is updated, you may want to update the corresponding image libraries for GIF.

Chapter 20: Saving as JPEG

When saving as a JPEG, you should let the image itself dictate the quality rather than reusing settings. The same settings for one image may produce significant loss on another.

Basic Settings

Quality: the overall quality of the output JPEG. The lower this value is the more compression you'll attain, at a cost to visual quality. Generally you'll want the lowest quality with no significantly noticeable loss. Start at the default and adjust to the best compromise for the image.

You shouldn't usually go above 95, as the size grows significantly for no noticeable quality gain. Likewise, you shouldn't go below ~25 as banding may occur.

The *"Show Preview in image Window"* option creates a new layer with how the image will look with the current settings. It updates in real-time as you change the settings. You can zoom or hide as usual to get a better look at the quality.

Advanced Settings

These can be uncollapsed by selecting the box next to "Advanced Settings" and are saved for the current session, along with most other saving settings.

Lossy

These settings alter the actual image to help with compression. Changing these will change the overall subjective quality of the image.

Smoothing:

Setting the smoothing option to a non-zero value will smooth out the image slightly. This reduces fuzzy artifacts from compression, and helps with the compression. A setting of 0.10-0.15 removes a good portion of the artifacts without smearing edges.

Subsampling:

Gimp allows three subsampling modes. Subsampling discards more colour information (which is harder to discern) compared to luminance. Subsampling improves image compression at a cost to image quality, sometimes a significantly noticeable loss (such as on red), or no noticeable difference at all. Subsampling on an image where it shouldn't be used will smear the detail, most noticeably on sharp edges. If you notice significant loss with the default, you can turn it off by selecting "4:4:4", which is technically no subsampling.

DCT Method

The 'Floating' DCT method produces slightly better results than the 'Integer' method with a slight cost to speed. 'Fast Integer' should only be used where speed is imperative. (DCT) Discrete_cosine_transform Discrete Cosine Transform is generally a mathematical method that helps reduce the amount of unnecessary detail and aids in lossy compression methods.

Lossless

The following settings can losslessly be set; they don't affect the image's quality in any way.

Optimize

Optimizes the images table for a gain in compression. Unless speed is a concern, there's no reason to turn it off.

Comment

If you wish, a comment of your choosing can be set for the image, such as the quality settings, or a synopsis of how the image was made.

Save EXIF Data

Some cameras save information about the image, such as when it was taken or even if the flash was on. If you have no need for this information in the image you can safely turn it off.
When saving an image that has no EXIF data present the option will be grayed out.

Save Thumbnail

The JPEG format allows for a thumbnail of the image to be saved into the actual file itself. Most software using a thumbnail can generate one of its own and saving your own is unnecessary, as well as adding several kilobytes to the image size.

Progressive

Selecting Progressive will change the encoding to display the image at increasingly higher quality levels until the image is fully loaded. Progressive encoding also benefits the image's compression.
Leaving this option unchecked will switch to Standard encoding, where the image is displayed in rows from top to bottom.

Restart Markers

Restart markers are useful when data corruption can occur; the image will only be corrupt up until the next marker. Setting this higher increases the frequency of restart markers at a cost to filesize. Without restart makers, if any corruption occurs, the entire file can be compromised.

Chapter 21: Layers

Layers in the GIMP are a powerful tool allowing you to do many things. A good way to think of them is as layers of glass stacked up. Layers can be transparent, translucent or opaque.

The Layer Dialog

Go to *Windows > Dockable Dialogs > Layers* to open the layers dialogue. This dialogue is useful when editing with layers.

Starting

Open up the layers dialogue, and add as many layers as you like to the image. Note that any image editing or filters will only apply to your currently selected layers.

Transparency

The Opacity slider controls the transparency or opaqueness of a specific layer. This will not affect the internal alpha channel of the layer.

Layer Mask

A layer mask is a grayscale layer that controls the local transparency of a layer. This is useful for non-destructively deleting part of a layer, or only making part of a layer visible.

Using a Layer Mask to selectively edit an image

A layer mask is a very useful tool if you only want to edit part of an image. First duplicate the layer that you want to edit. Then make your changes to the bottom layer. Now add a black layer mask to the unchanged layer. Then use the white paint brush on the layer mask, to restore parts of the original version. A black area in a layer mask will have zero opacity, while a white (RGB 255,255,255) area will be completely opaque.

Chapter 22: Channels

Channels are very similar to layers, however, each layer corresponds with a particular level in the color model of the image (RGB, HSV or CMYK). Channels can be selected in any combination, and are shaded gray if currently active. You can also view and edit the channels separately, making changes to a single color while viewing the full-color image in your image window. Choosing what channels to display is done the same way as choosing what layers to display. Simply click the box next to it, and an eye will appear, indicating that the channel is displayed. Keep in mind, a channel can still be edited even if it is not displayed. This can lead to problems if you don't catch it early, and may require undoing a large number of edits to fix.
At the time of this writing, GIMP only supports the RGB (Red, Blue, Green) and the HSV (Hue, Saturation, Value) representation of the color model. CMYK isn't natively supported by GIMP, but a plug in giving some functionality is available at the website below.
www.blackfiveservices.co.uk/separate.shtml
The GIMP also supports the adding of custom channels allowing for even more advanced editing.

Chapter 23: Decompose

The Decompose tool will decompose a colour image into a series of grey scale layers. This allows you to edit the image in many different colour models.

Decompose

Go to *Colours > Components > Decompose*. This will bring up the Decompose Dialog.
The Decompose window looks like this:

Select the colour model that you wish to use from the drop down menu that matches the colour model you wish to split to.

Recompose

When done editing your image, select *Colours > Components > Recompose*, to recompose the image back into an RGB Image. When saving to the XCF format, the layers will be preserved.

Chapter 24: Levels

The levels tool is an easy and powerful tool for adjusting the tones of an image. It allows more precise control of contrast than the Brightness-Contrast tool, but doesn't give the user the complete control of Curves.

Input Levels
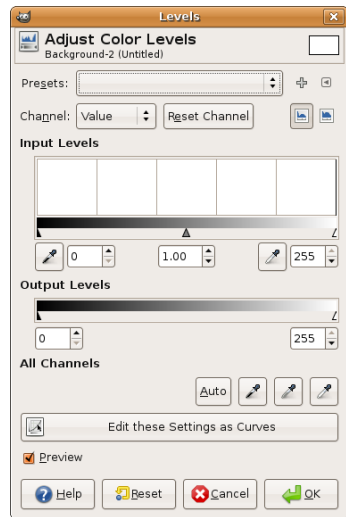
Input levels control the contrast of the picture. The end points control the black points, and the white points. The eyedropper buttons next to the black and white input level markers allow black and white points to be selected in the image. The middle pointer can be used to selected the gamma correction value for the image.

This tool can be used to simulate setting a white point. For images such as Image:PSF B-70002.png, setting a white point is critical in extracting useful images such as Image:Backstroke (PSF).png.

Chapter 25: Curves

Curves is a powerful tool found in The Gimp, it can be used for many things, such as fixing a colour cast.
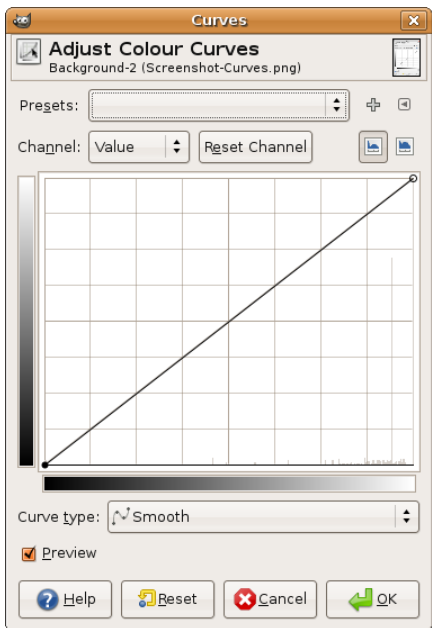
To use the curves tool, go to *<Image> Tools > Colour Tools > Curves* and you should see a window similar to this:

You can adjust the "Value" channel, which will brighten/darken the image depending on whether you drag the line up or down. Down will darken, up will lighten.

You can also adjust the Red, Blue, Green, and Alpha channels.

If your picture has a green colour cast, open up Curves, switch to the green channel, then move the line toward the bottom a little bit, until the cast is gone.

You can also switch the curve style, from smooth to jagged.

Chapter 26: Gaussian Blur

The Gaussian Blur filter blurs an image or selection.
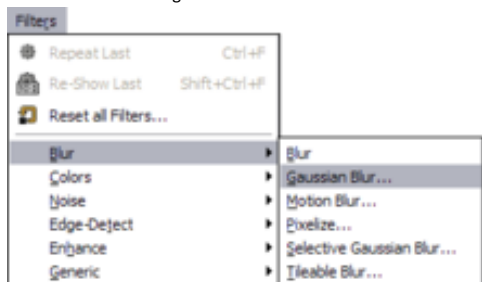
The Gaussian Blur filter can be found by going to *<Image> Filters > Blur > Gaussian Blur*.

The radius affects the strength of the blur. Besides for creating a fuzzy image, the Gaussian Blur has a few other uses. If you are working on an image with edges which one deems to be overly rough, one could use a blur radius of 1 to soften the image slightly, yet less dramatically than using a larger radius or the standard Blur filter. It is also very useful for a variety of image effects, such as shadows.

IIR vs. RLE

The filter supports two methods of Gaussian Blur: IIR and RLE. They both produce the same results, but each one can be faster in some cases.

IIR (Infinite Impulse Response) works best for large radius values or for images which are not computer generated, such as photographs.

RLE (run-length encoding) works best for computer-generated images or those with large areas of constant intensity, such as logos.

Selective Gaussian Blur

The Selective Gaussian Blur filter will selectively apply a Gaussian Blur to areas of a picture with less detail, leaving the areas with detail untouched. This can be used for cleaning up noise in a picture.
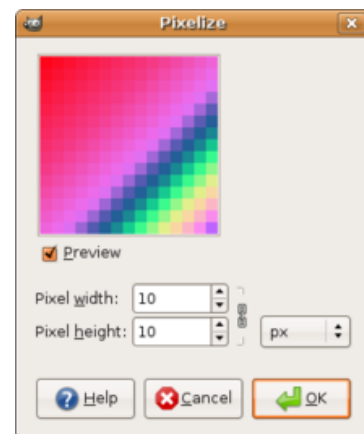

An example of the dialogue window of the Gaussian Blur filter. It contains a preview of an image with the blur radius set to 5.0.

Chapter 27: Pixelize
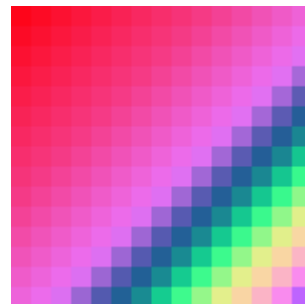
An example image of the effect.

An example of the dialogue window of the Pixelize filter.
It contains a preview of an image with the pixel size set to 10x10

Pixelize filter is for pixelizing the image, as the name suggests. The only thing you can set there is size of those "pixels". Default value is 10x10.

Chapter 28: Unsharp Mask

The Unsharp Mask filter performs a better job than the standard Sharpen filter by applying the sharpening selectively to a blurred version. Unsharp Mask tends to leave noisy sections of the image untouched.

Sharpening is a very desirable effect on blurry images or those which have been rescaled. Things are naturally sharp in your vision.

Note that the Unsharp Mask, like all other sharpening methods, will produce an aura around the edges if set too high.
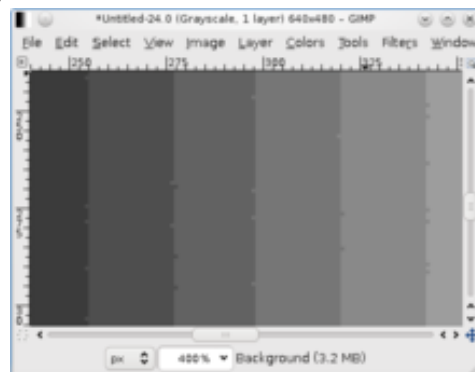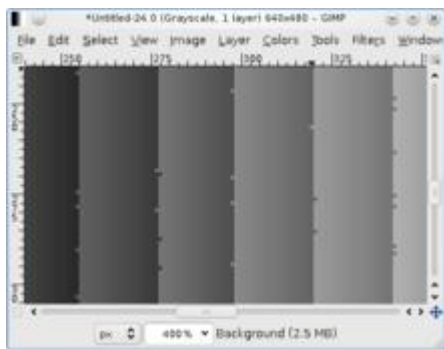
Sharpening Basics

Image before sharpening

The exaggerated effect of the unsharp mask filter.
Radius: 8, Amount: 2, Threshold 0, Zoom 400%

Unsharp mask increases the apparent sharpness of image by increases the contrast around edges. Dark patches near lighter areas get darker, and light patches near dark areas get lighter.

Filter Settings

Radius: The radius of the blur before the filtering. Where a value very low (0.1) will get similar effects as the standard sharpening filter, setting this higher removes noise and increases the contrast of the sharpening. Setting the blur radius too high, however, will have an effect similar to the Posterize tool.

Amount: The amount of sharpening to apply to the image. A useful value other than the default is 0.35, where it's usually not enough to produce a significant aura on edges.

Threshold: Helpful when the picture you are working with is very noisy. To avoid sharpening of noise in the image you can set the threshold level higher.

Chapter 29: Fractal Explorer

Fractal explorer should be located in your scripts menu at the top of your image window. If you don't have this entry on your copy of GIMP, you might find it under: Filters > Render > Fractal Explorer. Alternatively, This tool may not be installed in your copy of The GIMP, but can be acquired by either installing the newest version, or installing the script separately.

The Fractal Explorer window allow you to render a fractal from a list. You can change the perspective, zoom, colors, and color depth to customize your fractal from the original defaults.

By itself, it can be used to create some very impressive designs, but combined with other tools and filters, very complex patterns can be made.
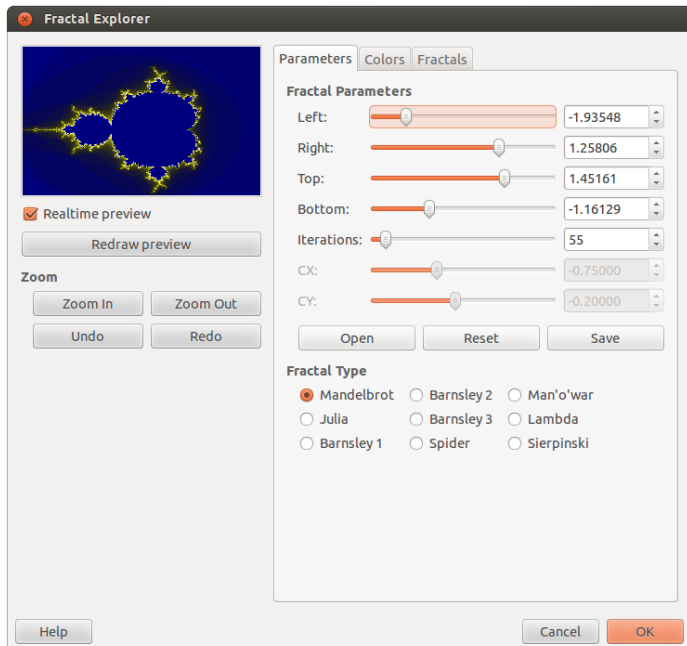
Default values of the Parameters tab in the Fractal Explorer tool's window .

Chapter 30: Assemble Images

To assemble two (or more) images, simply create a new, transparent image of the required size, then open the images you want to add as layers and arrange them as desired.

Result and example images

In this tutorial, we will create the image that look like this:

Creating the canvas

The *New Image* dialog

First, we create an empty image where we can arrange the other images as needed. For this purpose we use the *File > New...* menu entry. Since the original images are both 124×139 pixels big, we make the new image 248×139 pixels large. Since we don't want to assume anything about the images' colors, we choose to fill the new image with transparency only.

Your image window should now look more or less as displayed below.
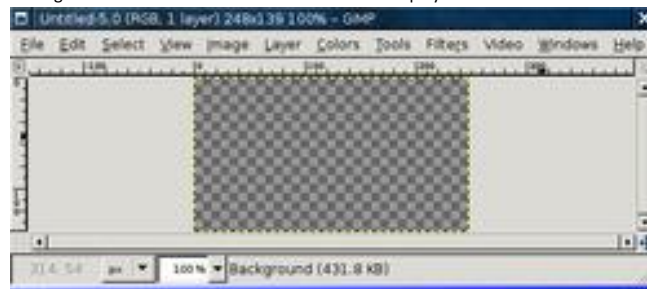
This is how your GIMP image window should look like now

Importing the images

To import the images, simply open them as layers (*File > Open as Layers...*). You should now have the opened images as layers somewhere on the main canvas, possibly hiding under each other. In any case, the layers dialog should show them all.
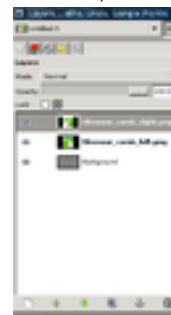
Of course you could also add image data with Copy&Paste. First copy whatever you want and then paste it with *Edit > Paste As > New Layer*.
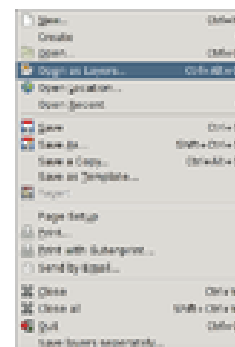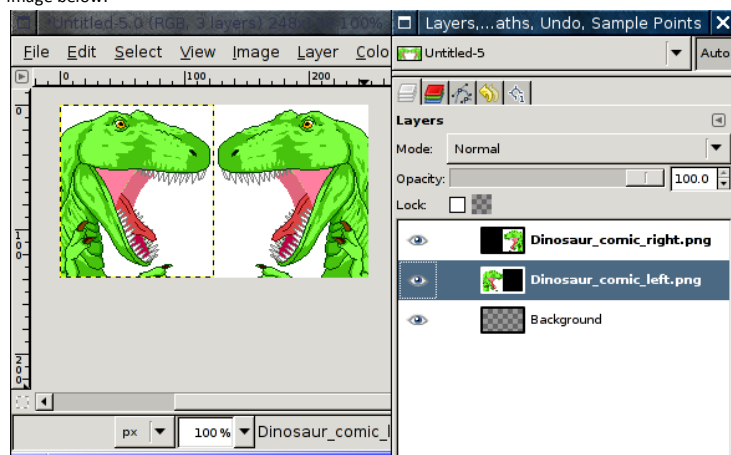

File > Open as Layers...

Only one dinosaur head is visible, the other one is hidden below.

All the needed images are shown in the layers dialog.

Arrange layers

Now the only thing left to do is to arrange the layers as needed. For this we use the move tool to move them around until they fit nicely. The result should look more or less as the image below:

Finished! Now you just need to save the image.

Chapter 31: Body Shifting

This is more or less how magazines are manipulating their images so that the models look "perfect" in their eyes and other areas. I strongly recommend using the latest version of The GIMP.

Load an image that you want to manipulate. Go in *<Image> Filters > Distorts > IWarp* (for Adobe Photoshop and Photoshop Elements users, this is the equivalent of the "Liquify" filter).

You manipulate the image in the preview. In the "Deform Mode" section, choose "Move", this will deform the image in the direction of the movement of the mouse. For the purpose of body shifting, "Remove", "Grow" and "Shrink" are the other interesting buttons. They do what it says on the tin. Adjust "Deform radius" and "Deform amount" to your likings, depending how subtle your edits have to be. Also the "Swirl" options produce interesting results. If you want to start over (e.g. you messed your image up) click on "Reset".

Chapter 32: Removal of Unwanted Elements in the Image

Often there is a need to remove unwanted elements in a image, such as the background. There are multiple methods.

Method 1: Magic Wand

An easy method is to use the *Magic Wand* selection l.

1. Firstly, right click on the layer you are working on and add an alpha channel if there is not already one. (Select Layer, Transparency, Add Alpha Channel.)
2. Now switch to the *Magic Wand* tool. Make sure the mode is set to *Add to the current selection*. (Mode is on Toolbox palette, just below "Fuzzy select")
3. Select all the parts that you want to erase by simply clicking in the area.
4. Press Delete..

Method 2: Colour to Alpha

An alternative method is *Colour to Alpha*. This method works better with logos with less than 5 colours.

1. Firstly, right click on the layer you are working on and add an alpha channel if required.
2. Select *<Image> Colours > Colour to Alpha*.
3. Set the colour after the "From:" label to the colour that you would like to remove.
4. Click OK.
5. Repeat steps 1-4 for any other colours that you need to remove.

Method 3: Foreground Select

A new method is the *Foreground Select* tool. This is best when there is only one thing in the foreground which you want to keep.

1. Firstly, select the *Foreground Select* tool.
2. Mark out a rough area around the foreground.
3. Scribble in the foreground only. Repeat scribbling until the coloured boundary is tightly around the foreground.
4. Press ENTER.
5. Go to *<Image> Select > Invert*.
6. Press Delete

Chapter 33: Caption a Picture

This effect will create a text caption with an outline effect. Firstly, use the text tool to write your caption. A contrasting caption would typically be black text with a white border; the border will be coloured later, so use black text.
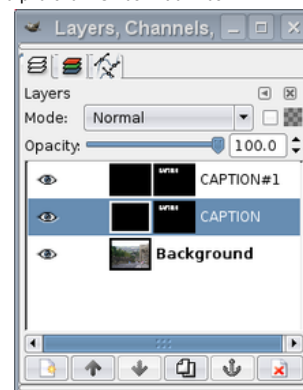
On the text layer, use

- *<Image> Layer > Discard Text Information*

- *<Image> Layer > Layer to Image Size*
- *<Image> Layer > Mask > Add Layer Mask*

Choose "Transfer layer's alpha channel" as initial mask

The layer dialogue box, showing the two layers,

Duplicate the text layer (in Layers dialogue or *<Image> Layer > Duplicate Layer*)

Select the lower layer's content, and fill it in white.

Switch to the layer's mask, and use *<Image> Filters > Generic > Erode*, this should expand the lower layer and give the text a border. This may need to be repeated several times (Ctrl+F)

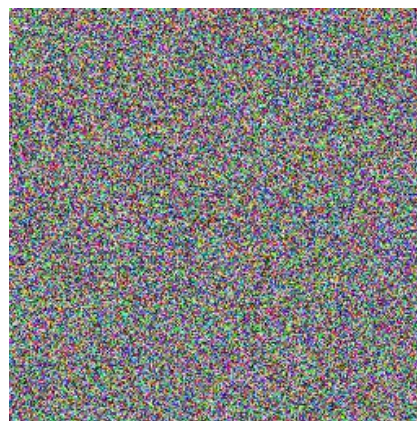Different fills and gradients can be applied to the two layers for a range of effects. Additionally, if a layer's mask is copied into a new, hidden layer, this can be used to apply a bump map via *<Image> Filters > Map > Bump Map*.

Some examples to created effective Images

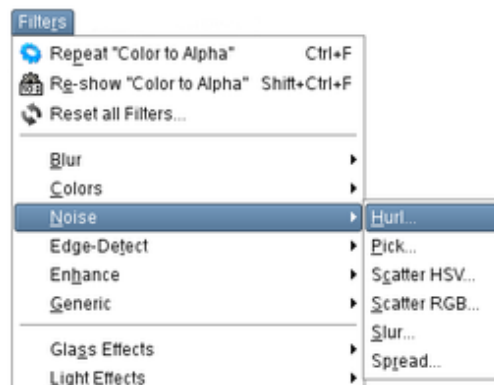### Example 1: Create a Metal Effect

This article will describe you how to create a brushed metal effect.

Step 1

Effect of first step.

First, we fill the canvas using the hurl filter (*Filters > Noise > Hurl*). Set Randomization (%) to 100.
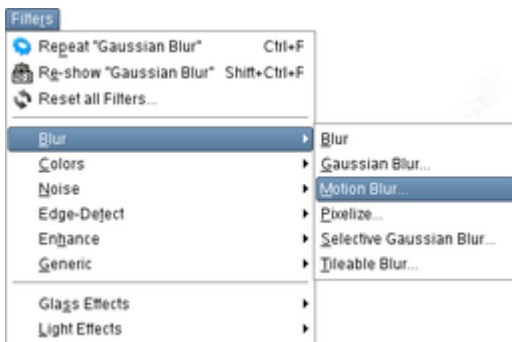

The Hurl filter can be found by going to *Filters > Noise > Hurl*.

This will do the same thing as the Scatter RGB filter (*Filters > Noise > Scatter RGB*) with all channels (Red, Green, and Blue) set to 1.0, However, Scatter RGB has slightly more options, and if you turn off Independent RGB in the settings dialogue, may allow you to skip the desaturation step.

Step 2

Then, apply a motion blur to the image (*Filters > Blur > Motion Blur...*) with an angle of 0 and a length of about 50. Change the angle to 180 and repeat the effect. Why? Notice how the right edge of the final image isn't nice and brushed looking? Doing it in both directions will smooth this out. You may have to adjust the length setting so as not to "overblur".

The Motion Blur filter can be found by going to *Filters > Blur > Motion Blur*.

Effect of second step.

Alternatively, you can use the Gaussian Blur filter (*Filters > Blur > Gaussian Blur*). Just click the chain icon and turn the vertical value down and adjust the horizontal value until you are satisfied. This effect will not leave a side of the image left unblurred and may have an even more satisfying final result with proper adjustment.

Step 3

This is the shortest step. Now we only need to desaturate the image. Go to *Colours > Desaturate* and press Lightness, although Luminosity may sometimes look better.
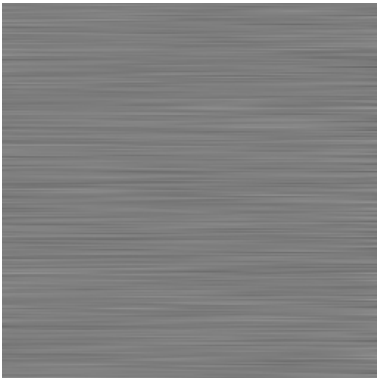
Effect of third step.

Apply cropping / tiling / brightness / lighting filters to suit. Cropping may not be necessary if you've used the Gaussian Blur approach as opposed to the Motion Blur approach.

Example 2: Create a Balloon
Step I

First, create a square image, and fill it with the colour of the balloon. Next, use the text tool to add any writing. This should be centred, and take up no more than about one-third of the space in each dimension. Merge the text layer with the colour layer.
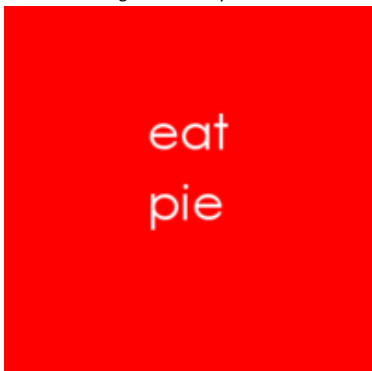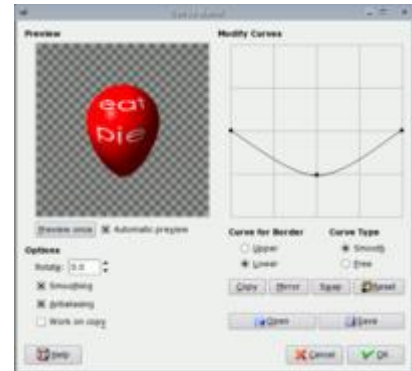

Step II

Use "Map to Object" (*<Image> Filters > Map > Map Object*) to create a sphere. Ensure a transparent background is selected. By default, the sphere won't take up the whole of the image, so tweak this with the Orientation controls.

Step III

To get the shape of a balloon, use Curve Bend (*<Image> Filters > Distorts > Curve Bend*). Select to work on the lower curve, as a smooth. Add one control point in the lower half of the grid, centred horizontally.

Step IV

The resulting image won't fit the current size, so select *<Image> Image > Fit Canvas to Layers*.
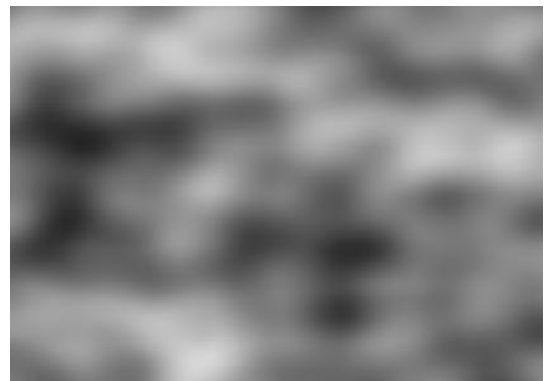

Example 3: Create a Stone Texture
This tutorial describes the creation of stone textures.

- 1: We start with Solid Noise (*<Image> Filters > Render > Clouds > Solid Noise*). Remember to tick the Tileable check box.

You can modify this a bit, but its effect may appear negative in the final result. You will see a rather smooth texture.

If you plan to make your image seamless, perhaps for usage in a 3D application, you might want to do a Gaussian Blur (*<Image> Filters > Blur > Gaussian Blur*) at 100 to make the texture more neutral.
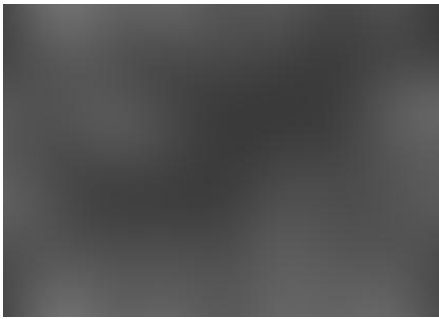
- 2: Now you have to add some stony grit on it. This can be done with Scatter RGB (*<Image> Filters > Noise > Scatter RGB*) with Independent RGB off and the values very low (Recommended around 0.05 per channel)

- 3: Create a New Layer using the New Layer button [ ] on the layer window (If you don't have one, in The Gimp's main window, go to *<Toolbox> File > Dialogs > Create New Doc > Layers, Channels, and Paths*.) and do the Plasma filter (*<Image> Filter > Render > Clouds > Plasma*). Try to get a good balance of black and white. Don't forget to set the Mode in the layer window to "Value" (not "Normal").
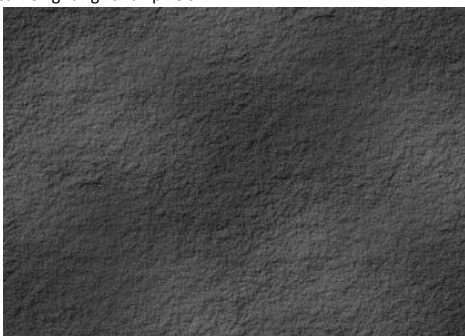

Moving the turbulence up just a little can also help if your aiming to make the texture seamless.
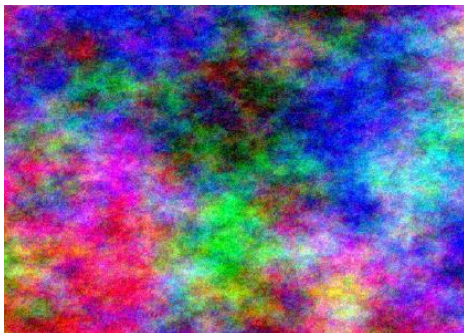
- 4: Now you have to use Lighting Effects (*<Image> Filters > Light Effects > Lighting Effects*), go to the bump map tab and choose the layer with the rendered Plasma. Place the light source as desired. Let the plug-in do the rest.
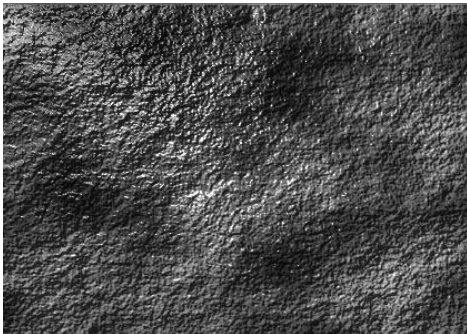
If you need to make your texture seamless, you probably want to do a Bump map instead, which has the same lighting for all pixels.